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27 cooperating with a rounded groove 28 formed on the inner wall of the end portion 10 of the main housing opposite to the side where the pivot pin 25 is mounted. The groove 28 forms a cam surface that has a curved profile downwards in the figure. The cam unit 27 has a longitudinal extension parallel to the pivot shaft 25 as shown in FIG. 7 when the mechanism has released. A moderate downward bending force on the attachment unit will not be sufficient to move the cam unit out of contact with the groove 28. For a higher bending force this force will be sufficient to press the cam unit 27 to the left in the figure whilst travelling downwards along the cam surface and allow the attachment device to be released to the position in FIG. 7. The factory setting of the bend release could be set to 70 Nm. After release the mechanism is easily reset by closing the prosthetic attachment portion 12 again, just by pushing the hand on it.

It should be understood that the bending force release mechanism is arranged to limit bending forces in the same plane as the natural bending of the prosthetic knee. This is achieved by the orientation of the bending shaft 25 which is locked in its position by means of said rotation adjustment screws.

The invention claimed is:

1. A connection device for connecting an implant system anchored in bone with an external prosthesis component, the connection device comprising:

- a main housing,
- a first attachment portion arranged for attachment to the implant system,
- a second attachment portion arranged for attachment to the prosthesis component, and
- a safety mechanism to protect the implant system from high mechanical forces, the safety mechanism including a bending force release mechanism, the bending force release mechanism including a pivot pin arranged in said main housing, wherein the pivot pin defines a pivot axis, wherein the second attachment portion is mounted pivotable around said pivot axis, wherein the second attachment portion includes a spring-loaded cam unit acting on a cam surface on the main housing, wherein the spring loaded cam unit is pivotable around said pivot axis, and wherein the bending force release mechanism operates solely for bending forces around said pivot axis.

2. A connection device according to claim 1, wherein the prosthesis component is for a joint having a joint axis and the orientation of the pivot pin is such that it is in parallel with the joint axis.

3. A connection device according to claim 2, wherein the first attachment portion includes a non-circular hole for receiving a part of the implant system, wherein the hole defines a center axis, said center axis being substantially perpendicular to said pivot axis and being located at a certain distance from the pivot axis, wherein said certain distance is determined for a certain bending force.

4. A connection device according to claim 2, wherein the safety mechanism is arranged to limit rotating forces as well as bending forces, and comprises a rotational force release mechanism to prevent rotating forces to be translated from the external prosthesis component to the bone.

5. A connection device according to claim 2, wherein the device includes an abutment coupling part comprising an excenter arm for quick connection and locking of the connection device to an abutment of the implant system.

6. A connection device according to claim 1, wherein the first attachment portion includes a non-circular hole for receiving a part of the implant system, wherein the hole

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defines a center axis, said center axis being substantially perpendicular to said pivot axis and being located at a certain distance from the pivot axis, wherein said certain distance is determined for a certain bending force.

7. A connection device according to claim 6, wherein the device includes an abutment coupling part comprising an excenter arm for quick connection and locking of the connection device to an abutment of the implant system.

8. A connection device according to claim 6, wherein the safety mechanism is arranged to limit rotating forces as well as bending forces, and comprises a rotational force release mechanism to prevent rotating forces to be translated from the external prosthesis component to the bone.

9. A connection device according to claim 1, wherein the safety mechanism is arranged to limit rotating forces as well as bending forces, and comprises a rotational force release mechanism to prevent rotating forces to be translated from the external prosthesis component to the bone.

10. A connection device according to claim 9, wherein the rotational force release mechanism comprises a plurality of components arranged to rotate relative to one another in an event of excessive torque being applied to the implant system.

11. A connection device according to claim 9, wherein the device includes an abutment coupling part comprising an excenter arm for quick connection and locking of the connection device to an abutment of the implant system.

12. A connection device according to claim 10, wherein the rotational force release mechanism includes a first component connected to one of said first attachment portion or said main housing, a second component connected to the other of said first attachment portion or main housing, the first component including a ring unit having an inner surface with at least one depression, the second component including plunger means and spring means, wherein the plunger means has at least one plunger unit wherein the at least one plunger unit is urged into contact with said at least one depression by said spring means.

13. A connection device according to claim 10, wherein the device includes an abutment coupling part comprising an excenter arm for quick connection and locking of the connection device to an abutment of the implant system.

14. A connection device according to claim 12, wherein said first component is connected to said main housing, and said second component is connected to said first attachment portion.

15. A connection device according to claim 12, wherein the inner surface of the ring unit has two depressions diametrically opposed to each other and the plunger means has two oppositely directed plunger units contacting a respective one of said depressions and the spring means is arranged to urge the plunger units away from each other.

16. A connection device according to claim 12, wherein the rotational force release mechanism is arranged with relation to the first attachment portion.

17. A connection device according to claim 12, wherein the device includes an abutment coupling part comprising an excenter arm for quick connection and locking of the connection device to an abutment of the implant system.

18. A connection device according to claim 1, wherein the device includes an abutment coupling part comprising an excenter arm for quick connection and locking of the connection device to an abutment of the implant system.

19. A connection device according to claim 1, wherein the bending force release mechanism is arranged with relation to the second attachment portion.

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